



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,801	01/22/2002	Uma Chandrashekhar	CHANDRASHEKHAR 1-2-1-2-2-	4733
46363	7590	11/02/2006	EXAMINER	
PATTERSON & SHERIDAN, LLP/ LUCENT TECHNOLOGIES, INC 595 SHREWSBURY AVENUE SHREWSBURY, NJ 07702			DOAN, DUYEN MY	
			ART UNIT	PAPER NUMBER
				2152

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/053,801	CHANDRASHEKHAR ET AL.	
	Examiner Duyen M. Doan	Art Unit 2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 11 August 2006.  
 2a) This action is FINAL. 2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-36 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-36 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 22 February 2002 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____	6) <input type="checkbox"/> Other: _____

## DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/11/06 has been entered. Claims 1-36 are amended for examination.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 5-20, 25-30, 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duffield et al (us pat 6,912,232) (hereinafter Duff) in view of Pirot et al (us pat 6,856,676) (hereinafter Pirot).

As regarding claim 1, Duff discloses a plurality of internet protocol (IP) services aggregation switches for communicating between respective access networks and a core network, each of said IP services aggregation switches communicating with at least one respective VPN customer user (see Duff col.3, lines 4-51, customer network access VPN through access point); and a dynamic virtual private network (VPN)

manager, for providing customer network management and policy server functions (see Duff col.3, lines 4-51; col.4, lines 1-34, lines 64-67; col.5, lines 1-14, lines 48-61; col.10, lines 1-55; col.11, lines 22-40); said VPN having at least one of a defined quality of service (QoS) parameter, a defined security parameter and a corresponding billing rate, at least one of said QoS parameter and said security parameter (see Duff col.3, lines 4-51; col.4, lines 1-34, lines 64-67; col.5, lines 1-14, lines 48-61; col.10, lines 1-55; col.11, lines 22-40).

Duff does not expressly disclose including a user interface enabling remote management of a VPN by a VPN customer user and user commands provided to said dynamic VPN manager by said VPN customer user.

Pirot teaches including a user interface enabling remote management of a VPN by a VPN customer user and user commands provided to said dynamic VPN manager by said VPN customer user (see Pirot col.1, lines 14-39; col.11, lines 42-67; col.14, lines 50-65; col.16, lines 36-48).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to combine the teaching of Pirot to the system of Duff to remote manage the VPN by a VPN customer user because it would provide faster transport while minimizing delay, also allowing implement of various QoS levels in an effective and manageable way (see Pirot col.1, lines 36-45).

As regarding claim 2, Duff-Pirot discloses said dynamic VPN manager adapts at least one of said IP services aggregation switches to provide at least one of a guaranteed QoS parameter and a guaranteed security parameter to said VPN (see Duff

col.3, lines 4-51; col.4, lines 1-34, lines 64-67; col.5, lines 1-14, lines 48-61; col.10, lines 1-55; col.11, lines 22-40).

As regarding claim 5, Duff-Pirot discloses wherein said QoS parameter comprises at least one of a bandwidth parameter, a jitter parameter and a delay parameter (see Duff col.3, lines 4-51; col.4, lines 1-34, lines 64-67; col.5, lines 1-14, lines 48-61; col.10, lines 1-55; col.11, lines 22-40).

As regarding claim 6, Duff-Pirot discloses security parameter comprises at least one of an encryption parameter, an authentication parameter and a filtering parameter (see Pirot col.11, lines 17-41). The same motivation was utilized in claim 1 applied equally well to claim 6.

As regarding claim 7, Duff-Pirot discloses VPN supports at least one of an interactive gaming application and a conferencing application (see Pirot col.1, lines 49-67; col.2, lines 1-38). The same motivation was utilized in claim 1 applied equally well to claim 7.

As regarding claim 8, Duff-Pirot discloses said dynamic VPN manager is responsive to a user command to establish an application profile for a VPN, said application profile defining at least one of a QoS parameter, a security parameter and a corresponding billing rate for said VPN during at least one time period, said dynamic VPN manager adapting said at least one of a QoS parameter and a security parameter of said VPN according to said application profile (see Pirot col.5, lines 41-67; col.6, lines 46-67; col.7, lines 1-14; col.11, lines 42-67; col.14, lines 50-65; col.16, lines 36-48). The same motivation was utilized in claim 1 applied equally well to claim 8.

As regarding claim 9, Duff-Pirot discloses wherein a command received from a the VPN customer user comprises a user selection of one of a plurality of VPNs to join (see Duff col.3, lines 4-51; col.4, lines 1-34, lines 64-67; col.5, lines 1-14, lines 48-61; col.10, lines 1-55; col.11, lines 22-40).

As regarding claim 10, Duff-Pirot discloses a command received from a the VPN customer user comprises a user selection of one of a plurality of applications based on VPNs to join (see Pirot col.5, lines 41-67; col.6, lines 46-67; col.7, liens 1-14; col.11, lines 42-67; col.14, lines 50-65; col.16, lines 36-48). The same motivation was utilized in claim 1 applied equally well to claim 10.

As regarding claim 11, Duff-Pirot discloses plurality of VPNs have at least one of respective QoS requirements and security requirements, said QoS and security requirements having corresponding billing rates (see Duff col.3, lines 4-51; col.4, lines 1-34, lines 64-67; col.5, lines 1-14, lines 48-61; col.10, lines 1-55; col.11, lines 22-40).

As regarding claim 12, Duff-Pirot discloses said plurality of applications have at least one of respective QoS requirements and security requirements, said QoS and security requirements having corresponding billing rates (see Duff col.3, lines 4-51; col.4, lines 1-34, lines 64-67; col.5, lines 1-14, lines 48-61; col.10, lines 1-55; col.11, lines 22-40).

As regarding claim 13, Duff-Pirot discloses an enhanced application portal (EAP), for providing said user interface to said VPN customer user and receiving therefrom VPN administration commands adapted to configure said VPN (see Pirot col.5, lines 41-67; col.6, lines 46-67; col.7, liens 1-14; col.11, lines 42-67; col.14, lines

50-65; col.16, lines 36-48); a policy server, for communicating configuration parameters to network elements providing said VPN, said network configuration parameters determined according to VPN administration commands and profiles associated with said VPN administration commands (see Duff col.3, lines 4-51; col.4, lines 1-34, lines 64-67; col.5, lines 1-14, lines 48-61; col.10, lines 1-55; col.11, lines 22-40); and a directory server, for storing VPN topology and operational parameters and providing said VPN topology and operational parameters to said policy server and said EAP, said VPN topology and operational parameters adapted for being updated by said VPN customer user via said EAP (see Pirot col.5, lines 41-67; col.6, lines 46-67; col.7, liens 1-14; col.11, lines 42-67; col.14, lines 50-65; col.16, lines 36-48). The same motivation was utilized in claim 1 applied equally well to claim 13.

As regarding claim 14, Duff-Pirot discloses at least one element management system (EMS) for managing a plurality of network elements forming said VPN (see Pirot col.5, lines 41-67; col.6, lines 46-67; col.7, liens 1-14; col.11, lines 42-67; col.14, lines 50-65; col.16, lines 36-48). The same motivation was utilized in claim 1 applied equally well to claim 14.

As regarding claim 15, Duff-Pirot discloses wherein said apparatus is included within an internet service provider (ISP) network including said access networks and said core network, said dynamic VPN manager being included within a data center of said ISP (see Pirot col.5, lines 41-67; col.6, lines 46-67; col.7, liens 1-14; col.11, lines 42-67; col.14, lines 50-65; col.16, lines 36-48). The same motivation was utilized in claim 1 applied equally well to claim 15.

As regarding claim 16, Duff-Pirot discloses VPN has associated with it a respective name said VPN customer user being able to perform at least one of a VPN create, VPN modify, VPN store and VPN delete, command using said VPN name; said VPN modify command allows said VPN customer user to modify at least one of said VPN's topology, QoS parameter, and security parameter (see Pirot col.5, lines 41-67; col.6, lines 46-67; col.7, liens 1-14; col.11, lines 42-67; col.14, lines 50-65; col.16, lines 36-48). The same motivation was utilized in claim 1 applied equally well to claim 16.

As regarding claim 17, Duff-Pirot discloses wherein said VPN is retrieved from storage, activated and deactivated using a corresponding VPN name (see Duff col.3, lines 4-51; col.4, lines 1-34, lines 64-67; col.5, lines 1-14, lines 48-61; col.10, lines 1-55; col.11, lines 22-40).

As regarding claim 18, Duff discloses a policy server, for communicating configuration parameters to network elements providing said VPN, said network configuration parameters determined according to VPN administration commands and profiles associated with said VPN administration commands (see Duff col.3, lines 4-51; col.4, lines 1-34, lines 64-67; col.5, lines 1-14, lines 48-61; col.10, lines 1-55; col.11, lines 22-40); and a directory server, for storing VPN topology and operational parameters and providing said VPN topology and operational parameters to said policy server (see Duff col.3, lines 4-51; col.4, lines 1-34, lines 64-67; col.5, lines 1-14, lines 48-61; col.10, lines 1-55; col.11, lines 22-40), said VPN topology and operational parameters adapted for being updated by said VPN customer user (see Duff col.3, lines

4-51; col.4, lines 1-34, lines 64-67; col.5, lines 1-14, lines 48-61; col.10, lines 1-55; col.11, lines 22-40).

Duff does not expressly disclose enhanced application portal (EAP), for providing said a user interface to said a VPN customer user, and receiving therefrom VPN administration commands adapted to configure a VPN.

Pirot teaches enhanced application portal (EAP), for providing said a user interface to said a VPN customer user, and receiving therefrom VPN administration commands adapted to configure a VPN (see Pirot col.5, lines 41-67; col.6, lines 46-67; col.7, lines 1-14; col.11, lines 42-67; col.14, lines 50-65; col.16, lines 36-48).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to combine the teaching of Pirot to the system of Duff to have enhanced application portal (EAP), for providing said a user interface to said a VPN customer user, and receiving therefrom VPN administration commands adapted to configure a VPN because it would provide faster transport while minimizing delay, also allowing implement of various QoS levels in an effective and manageable way (see Pirot col.1, lines 36-45).

As regarding claim 19, Duff-Pirot discloses at least one element management system (EMS) for managing a plurality of network elements forming said VPN (see Pirot col.5, lines 41-67; col.6, lines 46-67; col.7, lines 1-14; col.11, lines 42-67; col.14, lines 50-65; col.16, lines 36-48). The same motivation was utilized in claim 18 applied equally well to claim 19.

As regarding claim 20, Duff-Pirot discloses a managed VPN has associated with it at least one of a defined quality of service (QoS) parameter (see Duff col.3, lines 4-51; col.4, lines 1-34, lines 64-67; col.5, lines 1-14, lines 48-61; col.10, lines 1-55; col.11, lines 22-40), a defined security parameter and corresponding billing rate, at least one of said QoS parameter and said security parameter being adapted in response to said VPN administration commands (see Duff col.3, lines 4-51; col.4, lines 1-34, lines 64-67; col.5, lines 1-14, lines 48-61; col.10, lines 1-55; col.11, lines 22-40).

As regarding claim 25, Duff discloses retrieving a profile associated with said user request (see Duff col.3, lines 4-51; col.4, lines 1-34, lines 64-67; col.5, lines 1-14, lines 48-61; col.10, lines 1-55; col.11, lines 22-40); and providing configuration parameters to at least one network element in response to said user request and said profile associated with said user request, said network element adapted by said configuration parameter to satisfy said parameter of said VPN (see Duff col.3, lines 4-51; col.4, lines 1-34, lines 64-67; col.5, lines 1-14, lines 48-61; col.10, lines 1-55; col.11, lines 22-40).

Duff does not explicitly disclose receiving, from an authorized VPN customer user, a request to modify a parameter of a virtual private network (VPN).

Pirot teaches receiving, from an authorized VPN customer user, a request to modify a parameter of a virtual private network (VPN) (see Pirot col.5, lines 41-67; col.6, lines 46-67; col.7, lines 1-14; col.11, lines 42-67; col.14, lines 50-65; col.16, lines 36-48). The same motivation was utilized in claim 18 applied equally well to claim 25.

As regarding claim 26, Duff-Pirot discloses user request is received via an enhanced application portal (see Pirot col.5, lines 41-67; col.6, lines 46-67; col.7, lines 1-14; col.11, lines 42-67; col.14, lines 50-65; col.16, lines 36-48). The same motivation was utilized in claim 25 applied equally well to claim 26.

As regarding claim 27, Duff-Pirot discloses a quality of service (QoS) parameter, said QoS parameter adapting a data flow through a network such that a minimum QoS level is guaranteed to at least a portion of said VPN traversing said network (see Duff col.3, lines 4-51; col.4, lines 1-34, lines 64-67; col.5, lines 1-14, lines 48-61; col.10, lines 1-55; col.11, lines 22-40).

As regarding claim 28, Duff-Pirot discloses said parameter to be modified comprises a security parameter, said security parameter adapting a data flow through a network such that a minimum security level is guaranteed to at least a portion of said VPN traversing said network (see Pirot col.5, lines 41-67; col.6, lines 46-67; col.7, lines 1-14; col.11, lines 42-67; col.14, lines 50-65; col.16, lines 36-48). The same motivation was utilized in claim 25 applied equally well to claim 28.

As regarding claim 29, the limitation is similar to limitations of claim 5, therefore rejected for the same rationale as claim 5.

As regarding claim 30, the limitations are similar to claim 6, therefore rejected for the same rationale as claim 6.

As regarding claim 33, the limitations are similar to claim 16, therefore rejected for the same rationale as claim 16.

As regarding claim 34, the limitations are similar to claim 17, therefore rejected for the same rationale as claim 17.

As regarding claim 35, Duff discloses retrieving a profile associated with said user request (see Duff col.3, lines 4-51; col.4, lines 1-34, lines 64-67; col.5, lines 1-14, lines 48-61; col.10, lines 1-55; col.11, lines 22-40); and providing configuration parameters to at least one network element in response to said user request or said profile associated with said user request, said network element adapted by said configuration parameter to satisfy said parameter of said VPN (see Duff col.3, lines 4-51; col.4, lines 1-34, lines 64-67; col.5, lines 1-14, lines 48-61; col.10, lines 1-55; col.11, lines 22-40).

Duff does not explicitly disclose receiving, from an authorized VPN customer user, a request to activate, deactivate, join, leave or modify a parameter of a virtual private network (VPN).

Pirot teaches receiving, from an authorized VPN customer user, a request to activate, deactivate, join, leave or modify a parameter of a virtual private network (VPN) (see Pirot col.5, lines 41-67; col.6, lines 46-67; col.7, lines 1-14; col.11, lines 42-67; col.14, lines 50-65; col.16, lines 36-48). The same motivation was utilized in claim 1 applied equally well to claim 35.

As regarding claim 36, the limitations are similar to limitations of claims 26, therefore rejected for the same rationale as claim 26.

Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duff and Pirot as applied to claim 1 above, and further in view of Field (us pat 6778529).

As regarding claims 3, Duff-Pirot disclosed all limitations of claims 1 above but did not expressly disclose IP services aggregation switches communicate with said at least one respective user via a respective enhanced integrated access device (EIAD).

Field taught IP services aggregation switches communicate with said at least one respective user via a respective enhanced integrated access device (EIAD) (see Field col.4, lines 58-67, col.5, lines 6-23).

It would have obvious to one with ordinary skill in the art at the time the invention was made to combine the teaching of Field to the system of Duff-Pirot because having the EIAD communicate between the service provider and the customer would enable the customer device and the internet service provider communicate with each other in different formats (see Field col.5, lines 6-23).

As regarding claim 4, Duff-Pirot-Field disclosed dynamic VPN manager adapts at least one of said enhanced integrated access devices (EIAD) to provide at least one of a guaranteed QoS parameter and a guaranteed security parameter to said VPN (see Field col.4, lines 58-67, col.5, lines 6-23). The same motivation utilized in claim 3 applied equally well to claim 4.

Claims 21-24, 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duff and Pirot as applied to claim 18 above and further in view of Forslow (us 2002/0069278).

As regarding claims 21, Duff-Pirot disclosed all limitations of claims 18 above but did not expressly disclose dynamic VPN manager is included within a Universal Mobile Telecommunications Services (UMTS) packet transport network, said access networks comprising Gateway Generalized Packet Radio Service support nodes (GGSNs), said user accessing said UMTS packet transport network said dynamic VPN manager causing communications with said user communication device to be routed through a GGSN geographically proximate said user communications device.

Forslow taught dynamic VPN manager is included within a Universal Mobile Telecommunications Services (UMTS) packet transport network, said access networks comprising Gateway Generalized Packet Radio Service support nodes (GGSNs), said user accessing said UMTS packet transport network said dynamic VPN manager causing communications with said user communication device to be routed through a GGSN geographically proximate said user communications device (pg.1, par 20-24).

It would have obvious to one with ordinary skill in the art at the time the invention was made to combine the teaching of Field to the system of Duff-Pirot because having the VPN manager included within UMTS would enable the mobile users to roam between access networks with little or no intervention (see Forlsow pg.2, par 27).

As regarding claim 22, Duff-Pirot-Forslow disclosed determination of geographic location is made during an authentication procedure (see Forslow pg.1, par 3-4, pg.2, par 27-30). The same motivation was utilized in claim 21 applied equally well to claim 22.

As regarding claim 23, Duff-Pirot-Forslow disclosed apparatus is included within a CDMA-2000 packet transport network, said access networks comprising home agents, said user accessing said CDMA-2000 packet transport network with a communications device nominally assigned to a home agent (see Forslow pg.1 par 5-10, page 2, par 27-30); said dynamic VPN manager causing communications with said user communication device to be routed through a home agent geographically proximate said user communications device (see Forslow pg.1 par 5-10, page 2, par 27-30). The same motivation was utilized in claim 21 applied equally well to claim 23.

As regarding claim 24, the limitation is similar to claim 22, therefore rejected for the same rationale as claim 22.

As regarding claim 31, Duff-Pirot-Forslow disclosed VPN supports at least one application having associated with it at least one of respective QoS requirements and security requirements, said QoS and security requirements having corresponding billing rates (see Duff col.3, lines 4-51; col.4, lines 1-34, lines 64-67; col.5, lines 1-14, lines 48-61; col.10, lines 1-55; col.11, lines 22-40).

As regarding claim 32, Duff-Pirot-Forslow disclosed at least one of an interactive gaming application and a conferencing application (see Pirot col.5, lines 41-67; col.6,

lines 46-67; col.7, lines 1-14; col.11, lines 42-67; col.14, lines 50-65; col.16, lines 36-48). The same motivation was utilized in claim 18 applied equally well to claim 32.

***Response to Arguments***

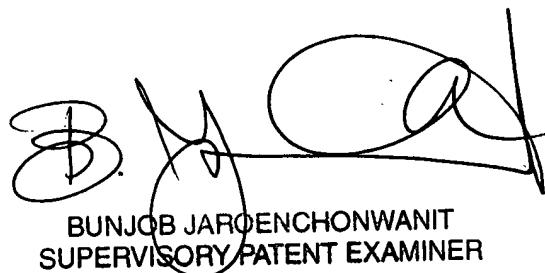
Applicant's arguments with respect to claims 1-36 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duyen M. Doan whose telephone number is (571) 272-4226. The examiner can normally be reached on 9:30am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob A. Jaroenchonwanit can be reached on (571) 272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Examiner  
Duyen Doan  
Art unit 2152



BUNJOB JAROENCHONWANIT  
SUPERVISORY PATENT EXAMINER